



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/539,487

04/14/2006

David Neville Davies

13871US/BAT018PA

2452

58503 7590 09/28/2009  
STEVENS & SHOWALTER, L.L.P.  
BOX BAT  
7019 CORPORATE WAY  
DAYTON, OH 45459-4238

EXAMINER

HOGAN, JAMES SEAN

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

09/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,487	<b>Applicant(s)</b> DAVIES ET AL.	
	<b>Examiner</b> JAMES S. HOGAN	<b>Art Unit</b> 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-46 and 49-67 is/are pending in the application.
- 4a) Of the above claim(s) 25, 30-34 and 38-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-24, 26-29, 35-37, 43, 46 and 49-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on June 29, 2009. These drawings are accepted.

### ***Response to Arguments***

2. Applicant's arguments filed June 29, 2009 have been fully considered but they are not persuasive. The Examiner contends that the claimed invention is till readable upon the instant claims. As a broad interpretation of said claims does not limit the scope by which the Examiner is charged to examine. By Applicant's admission, the "outlet" at (11) is, in fact, electrically conductive, as it contains the first electrode at a first potential and, thus are not affected by the amended claims.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 22, 23, 29, 35, 43, 54-56, and 63-67 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,684,879 to Coffee et al.

As per claim 22, Coffee et al discloses in Figure 2, means for supplying liquid (from (8)) to an outlet (at (11)), an electrical discharge means (12) including means (7a) for coupling the electrical discharge means to a first potential (from (7)) and for coupling the outlet (11) to a second, different, potential (from (5)) for causing an electric field to

Art Unit: 3752

be generated at said outlet to produce a dispersion of aroma-providing droplets from liquid issuing from the outlet and for producing at the electrical discharge means ions to at least partially electrically discharge the dispersion, wherein said one of said outlet and said electrical discharge means is coupled to said first potential via a resistance (Col. 2, lines 55-Col. 3, line2), the coating of the electrode being what supplies the resistance.

As per claim 23, the coupling means, as cited, include a couple to earth.

As per claim 29, as shown in Figure 2, then electrical discharge means 911) surround the liquid outlet.

As per claim 35, a resistance couples the outlet to a first potential (at 12), with the coating on the electrode 912) providing the resistance.

As per claim 43, a control is disclosed for enabling the device to be activated in a predetermined manner (SW1, SW2) which can be at a predetermined time via a delay (120).

As pr claim 46, 54, and 55 the embodiment shown in Figure 11 discloses a plurality of liquids (8) and means for controlling the liquids at different times, as the delay (120) is schematically coupled to only one pump and reservoir

As per claim 56, a flexible reservoir is disclosed (Col. 5, line 6)

As per claim 63, the device of Coffee et al is shown being carried by a person (Figure 1).

As per claims 64-67, Coffee et al teaches its device being used with olfactory stimuli and suppressants (Col. 1, lines 5-9).

Art Unit: 3752

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 26, 27, 37, 60 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al.

3. The rejection of claim 22 serves as the basis for the following.

4. As per claims 26, 27, 37, 49, Coffee et al is silent as to the resistance of a plausible component resistor but does teach a desired resistivity of a coating on an electrode to create the same result of 500 mega ohms with the coating being  $5 \times 10^{11}$  Ohms per centimeter of coating at 2mm thick. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted a component resistor of the desired resistivity range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering a workable range involves only routine skill in the art. See in *re Aller*, 105 USPQ 233.

5. As per claim 60 and 62, there is no teaching of the device of Coffee et al being placed on a tabletop or in use with a motor vehicle, however, as the device is being shown being carried by a person in Figure 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the device of Coffee et al on a surface after its use, on a table or in the interior of a known motor vehicle.

Art Unit: 3752

6. Claims 28, 36, 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent 5,655,517 to Coffee.

7. The rejection of claim 22 serves as the basis for the following.

8. As per claims 28, 36 and 51-53 Coffee et al teaches all the limitations of the claims except for qualifying the resistance of the liquid in the use of an electrostatic sprayer, that resistance being variable. However, Coffee discloses (Col. 2, line 56-58) such a use, with the resistance being variable, by nature, bases on the amount of liquid available in a reservoir. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with a resistance measurement as suggested by Coffee. Doing so would provide more precise spraying and because (a) the Coffee et al reference and the Coffee reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Applicant and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense.

*KSR, International Co. v. Teleflex Inc., 550 U.S. (2007).*

9. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent No. 4,095,596 to Grayson.

10. The rejection of claim 56 above serves as the basis for the following.

11. Coffee et al teaches all the limitations of the claims except for a frangible seal with a reservoir. However, Grayson discloses a frangible ampoule or reservoir 9See Abstract). Therefore, it would have been obvious to one having ordinary skill in the art

Art Unit: 3752

to have provided the device of Coffee et al with a single use frangible reservoir as suggested by Grayson. Doing so would provide a disposable system and because (a) the Coffee et al reference and the Grayson reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Applicant and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense.

*KSR, International Co. v. Teleflex Inc., 550 U.S. (2007).*

12. Claim 58, 59 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent No. 6,602,475 to Chiao.

13. The rejection of claim 22 serves as the basis for the following.

14. As per claims 58, 59, and 61 there is no teaching by Coffee et al for the use of its device in combination with a various multimedia systems. Chiao teaches scent dispersion by electrostatic means in combination with a barcode reader (Col. 5, line 55-64) as well as with a home entertainment system by way of DVD's and personal computers (i.e. internet) (Col. 8, lines 50-61). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with various multimedia combinations as suggested by Chiao. Doing so would provide an improved multimedia experience and because (a) the Coffee et al reference and the Chiao reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Applicant and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of

Art Unit: 3752

innovation but of ordinary skill and common sense. *KSR, International Co. v. Teleflex Inc.*, 550 U.S. (2007).

15. Claim 64 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent No. 5,655,517 to Coffee.

16. The rejection of claim 22 serves as the basis for the following.

17. As per claims 64 and 65, there is no teaching by Coffee et al for the use of its device with insecticides or insect repellant. However, Coffee discloses the use of an electrostatic sprayer to dispense aromas (qualifying as insect repellants) and insecticides (Co. 2, line 64-68). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with an additional dispensing uses as suggested by Coffee. Doing so would provide an improved form of insect control and because (a) the Coffee et al reference and the Coffee reference are *known work in one of field of endeavor*, (b) such modification is merely the use of known technique to improve a similar device by Applicant. and (c) such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. *KSR, International Co. v. Teleflex Inc.*, 550 U.S. (2007).

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



Art Unit: 3752

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 6:00a-3:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./  
Examiner, Art Unit 3752

/Len Tran/  
Supervisory Patent Examiner, Art Unit 3752